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EXAMINER SCHLENTZ, NATHAN W				
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Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/758,997
Filing Date: January 16, 2004
Appellant(s): HERSHBERGER, MICHAEL NYLE

Adam W. Borgman
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 7 June 2010 appealing from the Office action mailed 23 November 2009.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 1-14, 27-33 and 39 are pending in the present application. Claims 8-14, 27-33 and 39 are withdrawn from further consideration as being drawn to non-elected subject matter. Therefore, claims 1-7 are rejected.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being

maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

2002/0025325	CHU et al.	2-2002
2002/0058683	TINEMBART et al.	5-2002
5,932,258	SUNVOLD	8-1999
5,252,136	DESFORGES et al.	10-1993

T. M. Burkhalter et al., "The ratio of insoluble to soluble fiber components in soybean hulls affects ileal and total-tract nutrient digestibilities and fecal characteristics of dogs", The Journal of Nutrition, 2001, 131, 1978-1985.

G. D. Sunvold et al., "Dietary fiber for cats: in vitro fermentation of selected fiber sources by cat fecal inoculum and in vivo utilization of diets containing selected fiber sources and their blends", Journal of Animal Science, 1995, 73, 2329-2339.

G. C. Fahey et al., "Dietary fiber for dogs: I. effects of graded levels of dietary beet pulp on nutrient intake, digestibility, metabolizable energy and digesta mean retention time", Journal of Animal Science, 1991, 68, 4221-4228.

D. Ježek et al., "Production of soluble dietary fibres from sugar beet pulp with Betanasa T enzyme in the extrusion process", Chemical and Biochemical Engineering Quarterly, 1996, 10(3), 103-106.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chu et al. (US 2002/0025325) in view of Burkhalter et al. (The Journal of Nutrition, 2001), Sunvold et al. (Journal of Animal Science, 1995), Fahey et al. (Journal of Animal Science, 1990), Sunvold '258 (US 5,932,258), Ježek et al. (Chemical and Biochemical Engineering Quarterly, 1996), and Desforges et al. (US 5,252,136).

Determination of the scope and content of the prior art

(MPEP 2141.01)

Chu et al. teach compositions for oral vaccination of healthy animals through drinking water or syrups comprising admixing a palatable flavorant with a vaccine formulation in order to promote self-administration of the vaccine formulation and/or to prevent rejection of the formulation when administered by an animal handler (Abstract). Chu et al. teach an example wherein the lyophilized vaccine is re-suspended in a flavored diluent, mixed with 5 liters milk solution containing non-fat dry milk, and then further diluted with 7 liters of water ([0102]). Also, Chu et al. teach that flavorants for use in the vaccine formulations include fruit flavors preferred for horses, cats and dogs, meat flavors preferred for dogs and cats, and fish flavors preferred for cats ([0029]).

Ascertainment of the difference between the prior art and the claims

(MPEP 2141.02)

Chu et al. do not specifically disclose the addition of beet pulp to their composition, as instantly claimed. However, Burkhalter et al. teach that beet pulp is the most common source of fiber added to commercial dog diets (page. 1979, left column, lines 8-10 after the table description). Sunvold et al. teach that diets containing moderately fermentable fiber provide fermentation end products that may be important in maintaining the health of the gastrointestinal tract of the cat, and beet pulp represents a moderately fermentable fiber source (Abstract; pg. 2335, left column, last sentence; pg. 2338, left column, lines 40-55 without counting spaces). Fahey et al. teach beet pulp levels up to 7.5% of diet DM appear acceptable as a dietary fiber source in a meat-based canine diet (Abstract). Sunvold '258 teach beet pulp is a fermentable fiber which intestinal bacteria present in the animal can ferment to produce significant quantities of short-chain fatty acids (col. 3, ll. 48-54). Ježek et al. teach the production of soluble dietary fibers from sugar beet pulp (Title and Abstract). Desforges et al. teach water-soluble fiber obtainable by treating sugar beet with water free from chemical reagents at ambient temperature and at an elevated temperature (Abstract). Desforges et al. further teach that commercial sources of dietary fiber from sugar beet pulp are known, wherein araban is one example of a fraction of the soluble fiber from sugar beet, and water-soluble beet fiber is also found in beet molasses (col. 1, l. 55 to col. 2, l. 5). Desforges et al. also teach that soluble sugar beet fiber has cholesterol lowering properties (i.e., hypocholestromic effect), and a beneficial effect on blood glucose and mineral availability (col. 2, ll. 13-17).

Finding of *prima facie* obviousness

Rational and Motivation (MPEP 2142-43)

Therefore, it would have been *prima facie* obvious for one of ordinary skill in the art at the time of the invention to add beet pulp fiber to the composition of Chu et al. because beet pulp fiber is well-known as a commercial source of dietary fiber for use in pet foods, and soluble beet fiber has cholesterol lowering properties (i.e., hypocholesterolaeamic effect), and a beneficial effect on blood glucose and mineral availability, as reasonably taught by Desforges et al.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tinembart et al. (US 2002/0058683) in view of Chu et al. (US 2002/0025325) and Burkhalter et al. (The Journal of Nutrition, 2001), Sunvold et al. (Journal of Animal Science, 1995), Fahey et al. (Journal of Animal Science, 1990), Sunvold '258 (US 5,932,258), Ježek et al. (Chemical and Biochemical Engineering Quarterly, 1996), and Desforges et al. (US 5,252,136).

Determination of the scope and content of the prior art

(MPEP 2141.01)

Tinembart et al. teach a veterinary preparation for fleas comprising lufenuron and nitenpyram, wherein oral administration of a liquid composition comprising lufenuron and nitenpyram effectively controlled flea infestation ([0057]-[0058]). Tinembart et al. also teach that because of its simple practicability, oral usage is one of the preferred subjects of the invention, especially the administration of tablets or suspensions, wherein additives are used to encourage willing consumption by the host animal, such as suitable odorous substances, flavorings and/or taste substances ([0061]-[0063]). Tinembart et al. teach that the lufenuron and nitenpyram are present from 0.1-95 wt.% and a liquid, physiologically acceptable carrier is present from 99.9-5 wt.% ([0078]).

Furthermore, Tinembart et al. teach an emulsifier concentrate example comprising 20 wt.% active substances (i.e. lufenuron and nitenpyram), 20 wt.% emulsifier, and 60 wt.% solvent, and the composition is diluted with water to the desired concentration (Example 6). Also, Tinembart et al. teach drink additive examples comprising 15 wt.% of active ingredient, 10 wt.% of the active ingredient in diethylene glycol monoethylether, 10 wt.% in polyethylene glycol 300, and 5 wt.% in glycerol (Example 7).

The teachings Chu et al. are discussed above and incorporated herein by reference.

Ascertainment of the difference between the prior art and the claims

(MPEP 2141.02)

Tinembart et al. and Chu et al. do not specifically disclose adding beet pulp to their compositions, as instantly claimed. However, Burkhalter et al. teach that beet pulp

is the most common source of fiber added to commercial dog diets (page. 1979, left column, lines 8-10 after the table description). Sunvold et al. teach that diets containing moderately fermentable fiber provide fermentation end products that may be important in maintaining the health of the gastrointestinal tract of the cat, and beet pulp represents a moderately fermentable fiber source (Abstract; pg. 2335, left column, last sentence; pg. 2338, left column, lines 40-55 without counting spaces). Fahey et al. teach beet pulp levels up to 7.5% of diet DM appear acceptable as a dietary fiber source in a meat-based canine diet (Abstract). Sunvold '258 teach beet pulp is a fermentable fiber which intestinal bacteria present in the animal can ferment to produce significant quantities of short-chain fatty acids (col. 3, ll. 48-54). Ježek et al. teach the production of soluble dietary fibers from sugar beet pulp (Title and Abstract). Desforges et al. teach water-soluble fiber obtainable by treating sugar beet with water free from chemical reagents at ambient temperature and at an elevated temperature (Abstract). Desforges et al. further teach that commercial sources of dietary fiber from sugar beet pulp are known, wherein araban is one example of a fraction of the soluble fiber from sugar beet, and water-soluble beet fiber is also found in beet molasses (col. 1, l. 55 to col. 2, l. 5). Desforges et al. also teach that soluble sugar beet fiber has cholesterol lowering properties (i.e., hypocholesterolaemic effect), and a beneficial effect on blood glucose and mineral availability (col. 2, ll. 13-17).

Finding of *prima facie* obviousness

Rational and Motivation (MPEP 2142-43)

Therefore, it would have been *prima facie* obvious for one of ordinary skill in the art at the time of the invention to add beet pulp fiber to the composition of Tinembart et al. because beet pulp fiber is well-known as a commercial source of dietary fiber for use in pet foods, and soluble beet fiber has cholesterol lowering properties (i.e., hypocholestromaemic effect), and a beneficial effect on blood glucose and mineral availability, as reasonably taught by Desforbes et al.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

(10) Response to Argument

Appellant argues on page 5 that Burkhalter, Sunvold, Fahey and Sunvold '258 all disclose extruded and dried food compositions, not liquid compositions, and nothing in these teachings even remotely suggests that beet pulp could be added to a liquid composition. However, the examiner respectfully argues that Desforbes et al. teach that soluble sugar beet fiber has cholesterol lowering properties, i.e. has a hypocholestromaemic effect, and also has a beneficial effect on blood glucose and mineral availability (col. 2, ln. 13-17). Desforbes et al. further teach that commercial preparations of dietary fiber from sugar beet pulp are known, and one example of a fraction of the soluble fiber is extracted from a slurry of beet pulp at elevated temperatures with calcium oxide (col. 1, ln. 55 to col. 2, ln. 5). Also, Ježek et al. teach

that soluble dietary fibers from sugar-beet pulp have been associated with serum cholesterol-reducing properties (Introduction). Ježek et al. teach that sugar beet pulp contains a high quantity of dietary fibers including soluble dietary fibers, and polysaccharide fibers of sugar beet pulp could easily be degraded by enzyme to the soluble dietary fibers, which can be incorporated into a large number of food products, with a consequent increase in their food value (Conclusion #1). Ježek et al. teach that the soluble fraction from the sugar beet pulp can reduce serum cholesterol, it can be used in hypertension therapy, as well as replacement for sugar in cases of diabetes (Conclusion #7). Therefore, it is clear that a soluble dietary fiber obtained from beet pulp is available and has numerous health benefits.

Burkhalter et al. teach that fiber is a nutritionally, chemically and physically heterogeneous material categorized into soluble-viscous fermentable fiber (soluble) and insoluble-nonviscous-nonfermentable fiber (pg. 1978, right column, first paragraph); and beet pulp is the most common source of fiber added to commercial dog diets (pg. 1979, left column, first paragraph). Sunvold et al. teach that beet pulp is a moderately fermentable fiber source, and the addition of moderately fermentable fibers (soluble fiber) to cat diets can provide a source of fermentation end products important in the maintenance of gastrointestinal tract health, as well as excellent stool quality and nutrient digestibility (Implications). Fahey et al. and Sunvold '258 teach that beet pulp fibers are acceptable as a dietary fiber source for animals. Therefore, one of ordinary skill in the art would be motivated to add soluble beet pulp fiber to animal food or drink in order to maintain the health of the animals' gastrointestinal tract, as well as other

health benefits associated with beet pulp fibers, as reasonably taught by Burkhalter, Sunvold, Fahey and Sunvold '258. One of ordinary skill in the art would have a reasonable expectation of success in adding the soluble beet pulp to the drinking water of Chu et al., which comprises the lyophilized vaccine, flavorant, milk and water, since Desforges et al. and Ježek et al. teach water-soluble beet pulp provides several health benefits.

Appellant argues on page 6 that the examiner did not specifically address even the expressly recited features of the pending dependent claims 2-5. However, the examiner respectfully argues that the features recited in dependent claims 2-5 are implicitly covered by the Office Action. As stated in the Office Action, Chu et al. teach an example wherein the lyophilized vaccine is re-suspended in a flavored diluent, mixed with 5 liters milk solution containing non-fat dry milk, and then further diluted with 7 liters of water ([0102]). Therefore, the re-suspended vaccine composition comprises 12 liters of a milk and water mixture. It is noted that cow's milk has approximately 87% water. Therefore, the amount of water present in the composition will clearly be greater than 80%. Also, the amount of vaccine will be between 0.00001 and 99 wt.%. Also, it is noted that fresh cow's milk has a pH of 6.5 to 6.7 and water has a pH of 7.0. Therefore, the solution containing the re-suspended vaccine will have a pH that is between 6.5 and 7.0. It's also noted that Chu et al. teach giving this composition as the drinking water. Therefore, one of ordinary skill in the art would have been motivated to add a soluble beet pulp fiber to the drinking water of Chu et al. in order to help maintain the health of the animals drinking the water.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Johann R. Richter/

Supervisory Patent Examiner, Art Unit 1616

Conferees:

/Michael G. Hartley/

Supervisory Patent Examiner, Art Unit 1618

/Nathan W Schlientz/

Examiner, Art Unit 1616